

PERORALLY INSERTABLE/REMOVABLE ANTI- REFLUX VALVE

Abstract of Disclosure

Disclosed are esophageal anti-reflux valve prostheses, and tools and procedures for peroral implantation and extraction of the prostheses. The prostheses disclosed have a semipermeable membrane to allow retrograde passage of gas, magnets disposed at a distal end of the sleeve to facilitate closure, and an outwardly bendable array of spikes that are longitudinally aligned for peroral insertion and lockable into a radially outwardly deployed configuration to keep the prosthesis from dislocating implantation. The implantation tool has inner and outer concentric tubes, the inner tube releasably threadably connected to the prosthesis, the outer tube reverse threaded with the inner tube to advance a distal headpiece to engage, deploy and lock the spikes into the deployed configuration. A vacuum assist can be used to help impact the lumen wall on the spikes. The extraction tool is similar to the implantation tool with an inner tube for threadably engaging the prosthesis, an outer tube with a distal crown with a plurality of shoes to unseat and unlock the spikes, and an overtube shield to receive the spikes and facilitate extraction of the prosthesis.

Figures